

### **REMARKS**

At the outset, the Examiner is thanked for the thorough review and consideration of the pending application. The Office Action dated September 21, 2007, has been received and its contents carefully reviewed.

By this Response, claims 1 and 10 have been amended, and claim 9 has been cancelled without prejudice or disclaimer of the subject matter recited therein. No new matter has been added. Accordingly, claims 1-8 and 10-15 remain pending in this application. Reexamination and reconsideration of the pending claims are respectfully requested.

In the Office Action, claims 1-15 are rejected under 35 U.S.C. § 102(b) as anticipated by or, in the alternative, under 35 U.S.C. § 103(a) as obvious over U.S. Patent No. 5,648,674 A1 to Weisfield et al. (hereinafter "Weisfield") and U.S. Patent No. 6,043,511 to Kim et al. (hereinafter "Kim").

The rejection of claims 1-8 and 10-15 is respectfully traversed and reconsideration is requested. Claims 1-8 and 10-15 are allowable over the cited references in that each of these claims recites a combination of elements including, for example, "a ground line that extends along a column direction parallel to said data line, said ground line connected to a plurality of X-ray detecting cells so as to apply a ground voltage" and "wherein said storage electrodes of said adjacent X-ray detecting cells along said column direction are connected to each other". None of the cited references including Weisfield and Kim singly or in combination, teaches or suggests at least this feature of the claimed invention.

In the present invention, the storage electrodes are connected to each other along a column direction parallel to the data line. In Weisfield, the lower electrodes 160 are connected to each other along a row direction parallel to the gate line 114. Because length of the data line is shorter than length of the gate line, the present invention can reduce gap between the ground voltages applied to first detecting cell and the last detecting cell respectively in contrast to Weisfield.

Also, in Weisfield, the ground voltage is applied to the lower electrode 160 via the capacitive line 162 between the lower electrodes 160. If the lower electrode 160 or capacitive line 162 has a disconnection, the ground voltage cannot be applied to the lower electrode 160 of adjacent detecting cells along the gate line 114 direction

In contrast, in the present invention, the ground voltage is applied to the storage electrode via the ground line extended in the column direction parallel to the data line and the storage electrode itself. If one conductive pattern of the storage electrode and the ground line has a disconnection, the ground voltage can be applied to the remaining conductive pattern of adjacent detecting cells along the data line direction.

Accordingly, Applicant respectfully submits that claim 1, claims 2-8 which depend from claim 1, claim 10, and claims 11-15 which depend from claim 10, are allowable over the cited references.


Applicants believe the foregoing amendments place the application in condition for allowance and early, favorable action is respectfully solicited.

If for any reason the Examiner finds the application other than in condition for allowance, the Examiner is requested to call the undersigned attorney at (202) 496-7500 to discuss the steps necessary for placing the application in condition for allowance. All correspondence should continue to be sent to the below-listed address.

If these papers are not considered timely filed by the Patent and Trademark Office, then a petition is hereby made under 37 C.F.R. § 1.136, and any additional fees required under 37 C.F.R. § 1.136 for any necessary extension of time, or any other fees required to complete the filing of this response, may be charged to Deposit Account No. 50-0911. Please credit any overpayment to deposit Account No. 50-0911. *A duplicate copy of this sheet is enclosed.*

Respectfully submitted,

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